## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

1 (previously presented): A method for modulating the processing of an amyloid precursor protein (APP), said method comprising contacting a composition containing said APP with an aspartyl protease inhibitor having the formula:

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$$R_3$$
 $N$ 
 $R_2$ 
 $R_6$ 
 $N$ 
 $R_5$ 
 $R_5$ 
 $R_5$ 
 $R_1$ 
 $R_2$ 
 $R_5$ 

6 wherein:

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R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are members independently selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, substituted arylalkyl, heteroaryl, substituted heteroaryl, heteroarylalkyl, substituted heteroarylalkyl, heterocycles, substituted heterocycles, heterocyclicalkyl and substituted heterocyclicalkyl; and
R<sub>5</sub> and R<sub>6</sub> are independently selected from the group consisting of hydrogen,

halogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, aryloxyalkyl and substituted aryloxyalkyl; or R<sub>5</sub> and R<sub>6</sub> and the carbons to which they are bound join to form an optionally

member selected from the group consisting of:

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substituted carbocyclic or heterocyclic fused ring system having a total of 17 9- or 10-ring atoms within said fused ring system. 18 2 (original): The method according to claim 1, wherein: 1 2 R<sub>1</sub> is a member selected from the group consisting of substituted alkylaryl, substituted aryl, substituted alkyl and substituted heterocyclic groups. 3 3 (original): The method according to claim 2, wherein: 1  $R_1$  is a member selected from the group consisting of: 2 3 4 1 4 (original): The method according to claim 1, wherein: 2 R2 is a member selected from the group consisting of substituted alkyl, 3 heterocyclic and substituted heterocyclic groups.

5 (previously presented): The method according to claim 4, wherein R<sub>2</sub> is a

$$CH_{2}-$$

$$CH_{2}-$$

$$CH_{2}-$$

$$H_{3}C-N$$

$$CH_{2}-$$

$$CH_$$

6 (original): The method according to claim 1, wherein:

R<sub>3</sub> is a member selected from the group consisting of substituted alkyl and substituted aryl groups.

7 (original): The method according to claim 6, wherein R<sub>3</sub> is a member selected

2 from the group consisting of:

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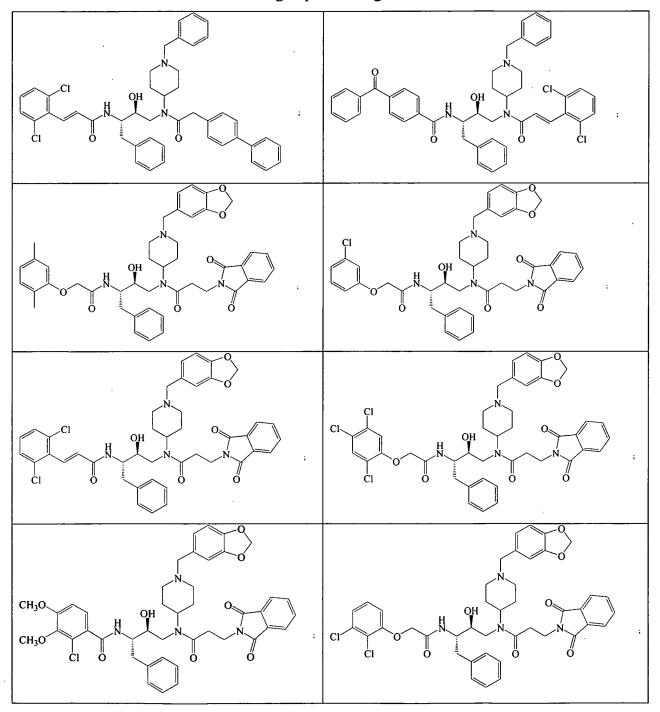
$$\begin{array}{c} Cl & HC \\ Cl & Cl \\$$

8 (original): The method according to claim 1, wherein R<sub>5</sub> and R<sub>6</sub> and the carbons to which they are bound form an optionally substituted napthalene ring.

9 (original): The method according to claim 1, wherein R<sub>5</sub> and R<sub>6</sub> are both hydrogen.

10 (original): The method in accordance with claim 1, wherein  $R_5$  is hydrogen and  $R_6$  is meta or para to  $R_5$  and is a member selected from the group consisting of halogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, aryloxyalkyl and substituted aryloxyalkyl.

- 11 (original): The method according to claim 1, wherein said aspartyl protease
- 2 inhibitor is a member selected from the group consisting of:



	OH NOH NO
CI OH N N N N	OH N
CI OH OH ON O	OH NON NON NON NON NON NON NON NON NON N
CH <sub>3</sub> OH	H <sub>3</sub> C O OH NH

CI OH N N N N N N N N N N N N N N N N N N	CI OH N OH N CH3
H <sub>3</sub> C O O O O O	CI OH N OH N CH <sub>3</sub>
H <sub>3</sub> C O O CH <sub>3</sub>	CI OH NH
CI OH N CH <sub>3</sub>	H <sub>3</sub> C O H OH N CH <sub>3</sub> and

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1 2 12 (original): The method according to claim 1, wherein said aspartyl protease

inhibitor is a member selected from the group consisting of:

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- 1 13 (previously presented): The method in accordance with claim 1, wherein said
- 2 aspartyl protease inhibitor is a member selected from the group consisting of
  - CEL5-A having the following structure:

5 CEL5G having the following structure:

7 EA 1 having the following structure:

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1 14 (original): The method in accordance with claim 1, wherein said composition 2 is a body fluid.

15 (previously presented): The method in accordance with claim 14, wherein said body fluid is cerebral spinal fluid.

16 (original): The method in accordance with claim 1, whereby formation of amyloidogenic A $\beta$  peptides (A $\beta$ ) is decreased compared to the amount formed in the absence of said aspartyl protease inhibitor.

17 (original): The method in accordance with claim 1, whereby formation of  $\alpha$ -sAPP is increased compared to the amount formed in the absence of said aspartyl protease inhibitor.

18 (original): The method in accordance with claim 1, wherein the modulation is effected by modulating the activity of cathepsin D.

19 (previously presented): A method for modulating the processing of a tauprotein ( $\tau$ -protein), said method comprising contacting a composition containing said  $\tau$ -protein with an aspartyl protease inhibitor having the formula:

(I)

Appl. No. 10/774,262 Amdt. dated February 13, 2006 Reply to Office Action of August 12, 2005

$$R_3$$
 $H$ 
 $R_1$ 
 $R_2$ 
 $R_6$ 
 $H$ 
 $R_1$ 
 $R_2$ 

5 wherein:

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R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are members independently selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, aryloxyalkyl, substituted aryloxyalkyl, heteroaryl, substituted heteroaryl, heteroarylalkyl, substituted heteroarylalkyl, heterocycles, substituted heterocycles, heterocyclicalkyl and substituted heterocyclicalkyl; and

R<sub>5</sub> and R<sub>6</sub> are independently selected from the group consisting of hydrogen, halogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, aryloxyalkyl and substituted aryloxyalkyl; or R<sub>5</sub> and R<sub>6</sub> and the carbons to which they are bound join to form an optionally substituted carbocyclic or heterocyclic fused ring system having a total of 9- or 10-ring atoms within said fused ring system.

20 (original): The method according to claim 19, wherein:

R<sub>1</sub> is a member selected from the group consisting of substituted alkylaryl, substituted aryl, substituted alkyl and substituted heterocyclic groups.

21 (original): The method according to claim 20, wherein:

R<sub>1</sub> is a member selected from the group consisting of:

$$CH_2$$
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 
 $CH_2$ 

- 22 (original): The method according to claim 19, wherein:
- 2 R<sub>2</sub> is a member selected from the group consisting of substituted alkyl,
- 3 heterocyclic and substituted heterocyclic groups.

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- 1 23 (previously presented): The method according to claim 22, wherein  $R_2$  is a
- 2 member selected from the group consisting of:

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$$\begin{array}{c} Cl \\ HC- \\ CH_{2}- \\ CI \\ CI \\ CH_{2}- \\ CH_{2}-$$

1 24 (original): The method according to claim 19, wherein:

R<sub>3</sub> is a member selected from the group consisting of substituted alkyl and substituted aryl groups.

25 (original): The method according to claim 24, wherein R<sub>3</sub> is a member selected from the group consisting of:

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26 (original): The method according to claim 19, wherein  $R_5$  and  $R_6$  and the carbons to which they are bound form an optionally substituted napthalene ring.

27 (original): The method according to claim 19, wherein  $R_5$  and  $R_6$  are both hydrogen.

28 (original): The method in accordance with claim 19, wherein  $R_5$  is hydrogen and  $R_6$  is meta or para to  $R_5$  and is a member selected from the group consisting of halogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, aryloxyalkyl and substituted aryloxyalkyl.

29 (original): The method according to claim 19, wherein said aspartyl protease inhibitor is a member selected from the group consisting of:

CI OH N	OH N CI
CH <sub>3</sub> O O O O O O	CI CI O O O O

CI OH N N N N N N N N N N N N N N N N N N	OH N N N N N N N N N N N N N N N N N N N
CH <sub>3</sub> OH N N N N N N N N N N N N N N N N N N	H <sub>3</sub> C O O O O O O O O O O O O O O O O O O O

CI OH N N N N N N	CI OH N, CH <sub>3</sub>
H <sub>3</sub> C O OH OH ON O	CI OH N OH N CH <sub>3</sub>
H <sub>3</sub> C O O O CH <sub>3</sub>	CI OH NH
Cl OH N CH <sub>3</sub>	H <sub>3</sub> C O H OH N CH <sub>3</sub>

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30 (original): The method according to claim 19, wherein said aspartyl protease

2 inhibitor is a member selected from the group consisting of:

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- 1 31 (previously presented): The method in accordance with claim 19, wherein
- 2 said aspartyl protease inhibitor is a member selected from the group consisting of
  - CEL5-A having the following structure:

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CEL5G having the following structure:

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EA 1 having the following structure:

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- 1 32 (original): The method in accordance with claim 19, wherein said
- 2 composition is a body fluid.
- 1 33 (previously presented): The method in accordance with claim 32, wherein 2 said body fluid is cerebral spinal fluid.
- 34 (original): The method in accordance with claim 19, whereby formation of τfragments is decreased compared to the amount formed in the absence of said aspartyl protease
  inhibitor.
  - 35 (original): The method in accordance with claim 19, wherein the modulation is effected by modulating the activity of cathepsin D.

36-50 (canceled)